

Date: Fri, 22 Jul 94 04:30:29 PDT
From: Ham-Homebrew Mailing List and Newsgroup <ham-homebrew@ucsd.edu>
Errors-To: Ham-Homebrew-Errors@UCSD.Edu
Reply-To: Ham-Homebrew@UCSD.Edu
Precedence: Bulk
Subject: Ham-Homebrew Digest V94 #205
To: Ham-Homebrew

Ham-Homebrew Digest Fri, 22 Jul 94 Volume 94 : Issue 205

Today's Topics:

 Building a house: Special Considerations? (2 msgs)
 Does anyone have info on QEX? (2 msgs)
 Dummy Load Oil
 Dummy Load Oil?
 Kenwood TS-50 to serial
 LF Band experience?
 LF regs? (2 msgs)
 Need info from late 60s/early 70s handbook or whole book

Send Replies or notes for publication to: <Ham-Homebrew@UCSD.Edu>
Send subscription requests to: <Ham-Homebrew-REQUEST@UCSD.Edu>
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Ham-Homebrew Digest are available
(by FTP only) from UCSD.Edu in directory "mailarchives/ham-homebrew".

We trust that readers are intelligent enough to realize that all text
herein consists of personal comments and does not represent the official
policies or positions of any party. Your mileage may vary. So there.

Date: 21 Jul 94 04:57:19 GMT
From: news.delphi.com!BIX.com!hamilton@uunet.uu.net
Subject: Building a house: Special Considerations?
To: ham-homebrew@ucsd.edu

I'll pass along two suggestions if you're building. Both are things
I'm looking at myself as my wife and I lay out our own plans for some
serious renovation next year.

1. If you're going to have heavy equipment out there digging and
pouring foundations, that's the time, if ever there was one,
to think about doing a tower. The incremental cost of asking
the backhoe operator to dig a little more and the concrete guys
to bring out a few more yards is nothing against what it'd cost
as a separate project.

- Regards,
Doug Hamilton KD1UJ hamilton@bix.com Ph 508-358-5715
Hamilton Laboratories, 13 Old Farm Road, Wayland, MA 01778-3117, USA

```
> 73
> John - VE8EV
> =====
> John Boudreau VE8EV      INTERNET: ve8ev@amsat.org
> Inuvik, NWT, CANADA      PACKET: VE8EV@KL7GNG.#NAK.AK.USA.NA
> =====
>
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— —

I have seen many references to QEX lately, and I don't know what it is about and who publishes it?

Thanks in Advance

Date: Thu, 21 Jul 1994 09:24:03 GMT
From: ihnp4.ucsd.edu!usc!math.ohio-state.edu!howland.reston.ans.net!
usenet.ins.cwru.edu!ns.mcs.kent.edu!kira.cc.uakron.edu!malgudi.oar.net!witch!ted!
mjsilva@network.ucsd.edu
Subject: Does anyone have info on QEX?
To: ham-homebrew@ucsd.edu

In article <30kdq3\$m4l@search01.news.aol.com>, PaulBreed (paulbreed@aol.com) writes:

>I have seen many referances to QEX lately, and I don't know what it is
>about and who publishes it?

>

It's a small (30-some pages), technical publication published monthly by the ARRL. \$12 a year, if I remember correctly. Look in a QST for subscription info.

73,
Mike, KK6GM

Date: Wed, 20 Jul 94 19:42:22 GMT
From: news2.sprintlink.net!news.sprintlink.net!dg-rtp!zero!harrism@uunet.uu.net
Subject: Dummy Load Oil
To: ham-homebrew@ucsd.edu

In article <30g0h9\$qcfc@goofy.iaccess.za>, briane@iaccess.za (Brian Ellse) writes:

|> In article <2E2A99C0@msmail.uthscsa.edu>, Muenzler, Kevin wrote:

|> > Yes, mineral oil is a little expensive and is probably the

|> > safest to use in a dummy load. Don't try anything like motor

|> > oil, it has many different types of lubricants that have

|> > different volatility. The 'best' type of oil is "turbine oil."

|> > You can get it at many farm and ranch supply stores. One of the

|> > easiest to find is sold by TEXACO distributors, Regal Oil R&O Number

|> > 46. You can usually find it in 5 gallon cans sold as "turbine oil."

|> > I don't know how easy it will be for you to find where you are. Just

|> > go out to one of the small towns in your area.

|>

|> My experience with dummy loads has shown that the cheapest and most

|> efficient oil to to use is Transformer oil. This is the oil used in

|> distribution transformers, as used by your power utility companies in the

|> USA. This is the same oil that we use in our oil-cooled welders here in
|> South Africa. I am sure you must have the same critter over there!
|>
|> The oil in the dummy load is ostensibly used for cooling/heat dissipation,
|> and this what the oil in transformers and welders is there for.
|>
|> Hope this info is useful to someone!!

Be careful as the oil in old transformers was pretty toxic/hazardous.
I don't know how to tell what the difference is but there are additives.
Sorry I can't help you more - I'm using mineral oil.

regards, Mike

Date: Thu, 21 Jul 1994 16:09:53 GMT
From: ihnp4.ucsd.edu!usc!nic-nac.CSU.net!charnel.ecst.csuchico.edu!csusac!
csus.edu!netcom.com!greg@network.ucsd.edu
Subject: Dummy Load Oil?
To: ham-homebrew@ucsd.edu

In article <H.eg.8cMnTIL5gT_@harvee.billerica.ma.us> esj@harvee.billerica.ma.us
writes:

>
>only the looks you get when you walk up to the counter carrying a gallon
>of mineral oil...
>
>A: well, at least it won't overheat now.
>
>A: but the instructions told me to!
>
>A: my S.O. won't let me use transformer oil.
>
>A: hey, it's only a hobby.

A: Simba's been a bit irregular lately.

Greg

Date: Thu, 21 Jul 1994 00:33:31 GMT
From: ihnp4.ucsd.edu!library.ucla.edu!europa.eng.gtefsd.com!uhog.mit.edu!
news.mtholyoke.edu!news.byu.edu!cwis.isu.edu!u.cc.utah.edu!math.utah.edu!
cosmic.physics.utah.edu!levin@network.UCSD
Subject: Kenwood TS-50 to serial
To: ham-homebrew@ucsd.edu

Hi,

I am looking for information on how to build a serial cable for my Kenwood TS-50. Kenwood wants \$100 and MFJ is now selling one for \$50. After saving for over a year for the radio I really can't spend even \$50. Since MFJ is making one, it can't be too hard. If anyone can tell me how, I would really appreciate it. Also, if possible I would like to know how to talk to the radio after building a cable. Does anyone have this information?

Please respond by e-mail so that I can summarize for everyone else. Also, my news feed only works occasionally and I might miss a general response.

My address is: levin@cosmic.physics.utah.edu

Thanks in advance.

-Chris Levin

Date: 21 Jul 94 18:59:12 GMT
From: news-mail-gateway@ucsd.edu
Subject: LF Band experience?
To: ham-homebrew@ucsd.edu

Several years ago I did some LF-band experience.

The quickest and dirtiest antenna is probably a vertical.

Actually, I used a flat-top "T" type antenna strug between two trees (but insulated from the trees!!!) tied into an almost-decent ground (a galvanized steel irrigation system in the yard, as well as a chain-link fence, not to mention a ground rod.

This first antenna system was rather poor (by LowFER standards) but it worked. It was tuned to the transmitter (a bipolar design, at the time... Ugh!) by having a Horizontal Oscillator Coil (from a TV) in series. The series antenna current is then peaked (by adjusting the slug.)

This tuning network is pretty miserable (low Q, high distributed capacitance, fairly high resistance, etc.) but it was easily audible (even under part 15 rules!) for several miles radius. Keep in mind that RFI is terrible down there (most RFI filters don't start working until you get above 100 KHz!) from almost anything - especially light dimmers!

If you can't easily hear the background noise on your receiver (be it QRM or QRN) then you need to improve it by either better-matching your antenna to your receiver (those TV coils work well here since you *can* tolerate loss, plus the selectivity will keep AM-BCB RFI to a minimum...)

DO NOT put a preamp inline unless your antenna is really short (< 20 feet or so) and is something like an "E-field" whip or an "H-Field" loop where the impinging signal produces a very low terminal voltage at the antenna.

For a while, I ran a LowFER beacon ("CT" on 177.75000 KHz) that ran CCW (10 baud) as well as 10 baud BPSK (and 1 baud BPSK, for a while...) and it was regularly copied in California and Wyoming (from the Salt Lake City, Area...)

I also experimented with SSB (using my Drake TR-7 as the exciter. Yes, the TR-7 *WILL* generate a useable signal down to about 30 KHz from the LF port if you have the AUX-diode matrix configured properly, as well a simple outboard box...) on 177.750 KHz. It was an endless-loop tape (60 seconds) with a clip of music and a voice and CW ID. This was easily copied in Orem (60-70 miles south, over 2 mountain ranges...)

Hey, you can do that down there. Its a Part 15 service! Since GWEN has been cancelled, perhaps the band will "clear" again... eventually:-)

<Clint>

Internet: clint@uugate.aim.utah.edu
Amprnet: ka7oei@uugate.wa7slg.ampr.org

Date: Wed, 20 Jul 1994 23:01:48 GMT
From: ihnp4.ucsd.edu!swrinde!cs.utexas.edu!convex!news.duke.edu!eff!
usenet.ins.cwru.edu!news.csuohio.edu!vmcms.csuohio.edu!R0264@network.ucsd.edu
Subject: LF regs?
To: ham-homebrew@ucsd.edu

In article <1994Jul20.180443.15129@galileo.cc.rochester.edu>
BILLY@urhep.pas.rochester.edu (Bill VanRemmen) writes:

>
>What are the regs for operation on the LF bands? Power output? Modes? Any
>licenses required? What freqs are allowed?

>
> -Bill VanRemmen, KA2WFJ
> billy@urhep.pas.rochester.edu
>

> My opinions. No one in their right mind would claim otherwise.

>+++++
> In nature, stupidity gets you killed.
> In the workplace, it gets you fired.
> In politics, it gets you re-elected.
>+++++

>
See QST, April, 1994 for answers to most of your questions. It has a picture of a homebrew lowfer on the front, and an article about the design and regs. No license, but a limit of 1 Watt, and a limit of 50 feet length for the antenna. That is pretty short considering the wavelengths involved. That is for the 160-190 MHz band. The medfer band is 510 to 1750 Mhz (I think) and the power limit is 100 milliwatts (I think), and an antenna max length of about 10 feet, again pretty short. The length limits are actually 15 and 3 meters, but they come out close to 50 and 10 feet.

Phil Emerson, aa8jo.

Date: Thu, 21 Jul 1994 17:06:31 GMT
From: ihnp4.ucsd.edu!agate!usenet.ins.cwru.edu!news.csuohio.edu!vmcms.csuohio.edu!
R0264@network.ucsd.edu
Subject: LF regs?
To: ham-homebrew@ucsd.edu

In article <16FF9FD90.R0264@vmcms.csuohio.edu>
R0264@vmcms.csuohio.edu writes:

>
>In article <1994Jul20.180443.15129@galileo.cc.rochester.edu>
>BILLY@urhep.pas.rochester.edu (Bill VanRemmen) writes:
>
>>
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>the antenna. That is pretty short considering the wavelengths involved.
>That is for the 160-190 MHz band. The medfer band is 510 to 1750 Mhz
>(I think) and the power limit is 100 milliwatts (I think), and an antenna
>max length of about 10 feet, again pretty short. The length limits are
>actually 15 and 3 meters, but they come out close to 50 and 10 feet.

> Phil Emerson, aa8jo.

Um, er, I meant KHz everywhere I wrote MHz. Also, after looking at the article again, I see that the medfer band is from 510 not clear up to 1750, but only to 1710 or maybe 1705. By the way, I ordered two kits from the author of the article, and have not heard from him for awhile. I suppose he is still scrounging the parts or something.

Phil Emerson, aa8jo.

Date: Wed, 20 Jul 1994 21:53:34 GMT
From: ihnp4.ucsd.edu!swrinde!gatech!newsxfer.itd.umich.edu!zip.eecs.umich.edu!
yeshua.marcam.com!charnel.ecst.csuchico.edu!csusac!csus.edu!netcom.com!
dgf@network.ucsd.edu
Subject: Need info from late 60s/early 70s handbook or whole book
To: ham-homebrew@ucsd.edu

I'm setting out to build a 4-1000 HF amp and would like to get some late sixties and/or early seventies era ARRL handbooks (would be willing to buy same) or alternatively photocopies of related articles in these handbooks.

73 Dave WB0GAZ dgf@netcom.com (Denver)

Date: 20 Jul 1994 12:47:00 GMT
From: agate!howland.reston.ans.net!EU.net!sunic!news.funet.fi!news.csc.fi!
nokia.fi!davies@ames.arpa
To: ham-homebrew@ucsd.edu

References <9407110930.aa16788@argos.ee.surrey.ac.uk>,
<1994Jul17.142908.2163@arrl.org>, <1994Jul19.052459.1@ccsvax.sfasu.edu>
Subject : Re: RSGB BOOK

Gary Coffman KE4ZV (gary@ke4zv.atl.ga.us) wrote:

> .. bad writing is not so much the technical innovator's fault
> as it is the technical *editor's* fault. It's his job to ...

and zlau@arrl.org (Zack Lau (KH6CP)) writes:

> But, what if there is *no* technical editor? One of the best places
> to find out about the latest innovative projects is conference
> proceedings, which don't have the lead times associated with editing.

and James Speer (f_speerjr@ccsvax.sfasu.edu) wrote:

> Scientific writing, as we practice it in our journals, and as is found in most
> conference proceedings, has as its objectives clarity, completeness, and
> objectivity. As everyone knows, it tends to run to long, complex sentences,
> passive voice, depersonalized construction, etc. Much of what I read in QST,
> and many of our most popular books, like those by Doug DeMaw and Wes Hayward,
> are written in some version or other of "science-ese." ...

Speaking at someone who wrote some chapters in the RSGB uW handbooks,
and did the typesetting for them ...

One of the biggest problems was getting those who knew best about
particular subjects to spend the time writing about them for the
handbooks. To give you an idea, the titles of chapters were first
defined in the early 1980's. It took about 5 years to get all the
chapters for the first volume written! Some chapters then needed more
work than others to produce a reasonable style and this all took
best part of a year [by a volunteer, editor Mike Dixon]. Even then,
some would say the style is still a little too "science-ese", but
to an extent, we had a RSGB style guide to follow, eg must use
antenna, not aerial, and so on.

The later volumes (2, 3) followed on a bit quicker, but it really is hard
work to get the material in a nice readable format, if the author does
not do it. Many of those at the forefront of technical development
do not naturally write in a nice readable format, and often see nothing
wrong with the "science-ese". I personally find I have to go over my
first draft and try crossing out say 1/3 of the words! Often nothing
is lost, and it can be turned into something much more readable!

However, the process can take so long that the latest material is
not in there. Eg RSGB uW HB vol 1 ch 6, GaAs FETs - info about the
earlier devices is there, but latest about HEMTs is not - it was
all written about 1985!

Zack is right about the technical conference proceedings being the
best place to get the latest technical info. Some of the ARRL microwave
ones are really good. But you don't get a book for beginners, instead a
collection of papers for those already well into the subject. I think
there is a place for both types of book.

73 Steve Davies G4KNZ.

Date: 20 Jul 1994 20:56:52 GMT

From: ihnp4.ucsd.edu!swrindc!howland.reston.ans.net!europa.eng.gtefsd.com!

news.umbc.edu!haven.umd.edu!cville-srv.wam.umd.edu!ham@network.ucsd.edu
To: ham-homebrew@ucsd.edu

References <30g0h9\$qcf@gooify.iaccess.za>, <0>, <1994Jul20.194222.18105@dg-
rtp.dg.com>g.gtef

Subject : Transformer Oil and P.C.B.'s

> Be careful as the oil in old transformers was pretty toxic/hazardous.
>I don't know how to tell what the difference is but there are additives.
>Sorry I can't help you more - I'm using mineral oil.
>
>regards, Mike

The old transformer oil had in it a substance called

"Polychlorinated Biphenyls" a.k.a. P.C.B.'s

which are a known carcinogen. Transformer oil hasn't
contained PCB's for some years, but there are MANY older
transformers in service that DO contain PCB-contaminated
oil. Not hazardous unless it leaks, but don't use it in
a dummy load.

Scott NF3I

--

73,

----- The
 \ / Long Original
Scott Rosenfeld Amateur Radio NF3I Burtonsville, MD | Live \$5.00
WAC-CW/SSB WAS DXCC - 130 QSLed on dipoles -----| Dipoles! Antenna!

End of Ham-Homebrew Digest V94 #205
